

Using large climate data sets for Probabilistic Weather-Event Attribution

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One contributor to the recent increase in climate data is the generation of medium (order 50) to large (order 1000) ensembles of climate simulations -- in addition to increased sophistication and resolution of climate models. Here we present some examples of such data and challenges in its analysis, in the context of attributing the risk of extreme weather-related events to anthropogenic climate change. Examples include a large-sized data set used to assess the attributable risk of a seasonal UK floods, and a medium-sized data set providing a systematic forecast of attributable risk in extreme events globally for the season ahead. The long term aim is to develop tools and products for providing systematic timely assessments of attributable risk for damaging weather-related events.